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EXAMINER	
ARK, DARREN W	
ART UNIT	PAPER NUMBER
3643	
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02/18/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/980,676	BRASH, KENNETH GEORGE	
	Examiner	Art Unit	
	Darren W. Ark	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *24,25,28-37 and 40-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *24,25,28-37 and 40-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 24, 25, 28, 30-37, 40-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Pat. No. 8-322449 to Otsuki et al. in view of Williamson 6,146,600, Smithyman 6,615,534, and Japanese Pat. No. 10-151320 to Haraguchi.

In regard to claim 24, Otsuki et al. discloses a mobile fumigation system positioned within at least one shipping container (container van 1) comprising a first gas-tight compartment including a fumigation chamber (10); a second compartment (9) including a fumigation apparatus (12) operatively coupled to the fumigation chamber (see Fig. 1); and a partition wall (3) separating the first and second compartments; a fumigant inlet device (21, 13) operatively coupled to the fumigation chamber through the partition wall to allow a fumigant (CO_2) into the fumigation chamber (10); an extraction device (14) operatively coupled to the fumigation chamber and arranged to remove a majority of the fumigant from the fumigation chamber (see Figs. 2-4); an absorption means (35) operatively coupled to the extraction device (via interconnection of the parts into an assembly) and being designed to absorb the ethylene and removed it from the fumigation chamber (35 performs the function of absorbing ethylene which is circulating

within the container; no particular fumigant or absorption means being particularly claimed), but does not disclose the system comprising an ISO general purpose shipping container. Williamson discloses creating a pest disinfestation system by modifying a standard twenty foot marine shipping container (100 in Fig. 16; ISO shipping containers are 20 feet long by 8 feet wide). It would have been obvious to one of ordinary skill in the art to modify the shipping container of Otsuki such that it is an ISO general purpose shipping container in view of Williamson in order to provide a shipping container with a standardized size which will allow it to be adapted to be transported readily by truck, rail, or ship as desired.

Otsuki does not disclose an extraction device to remove a majority of the toxic fumigant from the fumigation chamber or an absorption device coupled to the extraction device designed to absorb the toxic fumigant removed from the fumigation chamber. Smithyman discloses a fumigation system utilizing a phosphine gas as the fumigant and an absorption means (scrubber or filter 68) for removing potentially dangerous gases. It would have been obvious to one of ordinary skill in the art to modify the system of Otsuki et al. such that it utilizes a fumigant other than CO_2 and has an absorption device in view of Smithyman in order to provide a more lethal fumigant gas and an accompanying means for absorbing the potentially dangerous gas before it is released into the surroundings outside of the fumigation chamber. Otsuki et al. and Smithyman do not disclose an extraction device operatively coupled to the fumigation chamber. Haraguchi discloses an extraction device (opening of damper 5 and activation of exhaust fan 6) which is arranged to remove a majority of the fumigant from the

fumigation chamber by causing exhaust gases to pass through absorption device. It would have been obvious to one of ordinary skill in the art to modify the system of Otsuki et al. and Smithyman such that there is an extraction device arranged to remove a majority of the fumigant from the fumigation chamber in view of Haraguchi in order to provide a means whose sole purpose is to remove harmful gases from the fumigation chamber such that a majority of the harmful gases is evacuated from the produce stored therewithin.

In regard to claim 30, Otsuki et al. discloses the fumigation apparatus incorporating a source of the fumigant (20, 29) which is directly associated with a heating source (26).

In regard to claim 32, Otsuki et al. discloses the second compartment (9) incorporating a control box (25), a gas-tight fumigant supply source (20), and a plurality of fumigant delivery pipes (portions of 21, 13) and valves (18, 22, 23).

In regard to claim 33, Otsuki et al. discloses the fumigant inlet device (13) coupled to a dispersion pipe system (13a, 5).

In regard to claim 34, Otsuki et al. discloses the system control box containing a plurality of floor and wall-mounted pipes (see pipes between each of 14-17, 19, & 35 and apertures in 5, 6) independently connected via a system of taps and connectors to a fumigant sampling and detection meter unit (17 connected to the pipes via the interconnected closed loop system; no particular structural configuration being claimed) located in the second compartment (9). Also in regard to claim 34, Otsuki et al.,

Williamson, Smithyman, and Haraguchi disclose a fumigant sampling and detection meter unit (84a-c of Smithyman).

In regard to claim 35, Otsuki et al. discloses the system control box (25) containing a fumigant sampling and detection meter unit (17) and power supply switches for mixing fans, exhaust fan (14), lights (inherently there are light indicators on a control panel), gas heaters (26), and valve actuators (for 18, 22, 23). Also in regard to claim 35, Otsuki et al., Williamson, Smithyman, and Haraguchi disclose the system control box (25 of Otsuki et al., 38 of Smithyman) containing a fumigant sampling and detection meter unit (84a-c of Smithyman) and power supply switches for mixing fans, exhaust fan, lights, gas heaters, and valve actuators (see Smithyman Fig. 1, col. 5, lines 60-67, and col. 6, lines 1-13).

3. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Pat. No. 8-322449 to Otsuki et al. in view of Williamson 6,146,600, Smithyman 6,615,534, and Japanese Pat. No. 10-151320 to Haraguchi as applied to claim 24 above, and further in view of Imagawa 4,716,676 or Washburn, Jr. 5,203,108 or Black 3,811,579.

Otsuki et al., Williamson, Smithyman, and Haraguchi do not disclose the fumigation system including a sliding bed or floor on which the produce resides. Imagawa and Washburn, Jr. disclose a fumigation system (see Figs. 1, 2 OR see Fig. 1) including a sliding bed or floor (25 on 16 OR 26) on which the produce (1 OR 20, 22) resides. Black discloses a mechanized van loading and unloading apparatus and system comprising a sliding bed or floor (17, 40) on which products (13a, b) reside. It

would have been obvious to one of ordinary skill in the art to modify the fumigation system of Otsuki et al., Williamson, Smithyman, and Haraguchi such that it includes a sliding bed or floor on which the produce resides in view of Imagawa or Washburn, Jr. or Black in order to facilitate the loading and unloading of large quantities of the produce from within the volume of the fumigation chamber.

4. Claims 36, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Pat. No. 8-322449 to Otsuki et al. in view of Williamson 6,146,600, Smithyman 6,615,534, Japanese Pat. No. 10-151320 to Haraguchi as applied to claim 24 above, and further in view of Yates 5,904,909.

In regard to claims 36 and 37, Otsuki, Williamson, Smithyman, and Haraguchi discloses a fumigation device utilizing methyl bromide as a fumigation gas wherein the fumigation waste gas containing methyl bromide being introduced into a methyl bromide absorbing column (4 of Haraguchi) from a fumigation warehouse (1 of Haraguchi), the methyl bromide being adsorbed by the activated carbon. Otsuki et al., Williamson, Smithyman and Haraguchi disclose the activated carbon being desorbed by a hot air generated by a desorption heater (7 of Haraguchi), but do not disclose the device for washing at least part of the absorption bed with a chemical solution comprising sodium thiosulphate for degrading methyl bromide. Yates discloses a means for washing an absorption means (see col. 5, lines 56-end). It would have been obvious to one of ordinary skill in the art to modify the fumigation apparatus of Otsuki et al., Williamson, Smithyman, and Haraguchi such that it has a device for washing at least part of the absorption bed with a chemical solution to remove and degrade the absorbed fumigant

in view of Yates in order to provide means for completely cleaning the absorption bed using a reactive solution so as to prevent build-up of the potentially dangerous substances on the absorption means and possible release into the ambient air.

Response to Arguments

5. Applicant's arguments filed 10/15/2009 have been fully considered but they are not persuasive.

In regard to applicant's argument with regard to German Pat. No. 19950634 to Binker, the Examiner agrees with applicant's argument.

In regard to applicant's argument that "Otsuki, Smithyman and Haraguchi…none of the cited references…an ISO general purpose shipping container…", the Examiner contends that the modifying reference of Williamson 6,146,600 discloses modifying a standard 20 foot marine shipping container (100 in Fig. 16) to create a pest disinfestation system. The use of a standard sized container for the fumigation system would allow the system to be easily adapted to the various modes of transport for goods about the world which include by truck, rail, or ship.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nagagawa et al. 5,312,034 discloses a fumigation facility (32) with a fumigation chamber (40) having a first compartment (area behind 60 in Fig. 13) and a second compartment (area in front of 60 in Fig. 13) separated by a partition (60),

circulation fan (64), duct (66), pair of heating units (68), cooling unit (70), and a source of volatized methyl bromide fumigant (72).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W. Ark whose telephone number is (571) 272-6885. The examiner can normally be reached on M-F, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on (571) 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Darren W. Ark/
Darren W. Ark
Primary Examiner
Art Unit 3643

DWA